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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,123

10/30/2006

Sven-Ake Jonsson

1511-1055

7455

466 7590 01/25/2010

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EXAMINER

HUANG, CHENG YUAN

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

01/25/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary	Application No. 10/591,123	Applicant(s) JONSSON, SVEN-AKE	
	Examiner CHENG HUANG	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Newly submitted claim 21 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 21 is drawn to a process for making a thin walled squeezable tube while the originally presented invention of claims 1-20 are drawn to a thin walled squeezable tube. The special technical feature that is commonly shared between claim 21 and claims 1-20 of a thin-walled squeezable tube is taught by Dronzek et al. as modified by Hakansson, Sloan et al., and alternatively, Kieras, as disclosed below.
2. Given that Dronzek et al. as modified by Hakansson, Sloan et al., and alternatively, Kieras teaches the claimed invention, the cited claims fail to define a contribution over the prior art. Therefore, the cited claims fail to constitute a special technical feature and hence lack of unity exists between the cited claims.
3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 21 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 1794

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dronzek et al. (WO 93/09925) in view of Hakansson (U.S. Patent Application Publication No. 2002/0139707), and further in view of Sloan et al. (U.S. Patent No. 5,850,940), and alternatively Kieras (U.S. Patent No. 6,588,178).

7. Regarding claim 1, Dronzek et al. teaches plastic containers (page 12, lines 26-29), which is understood to include plastic bottles or tubes that comprise a tube body with a tube shoulder with an emptying opening at the first end and an end closure at the second end. Dronzek et al. teaches the label being comprised of a plastic film, e.g. biaxially oriented thermoplastic polypropylene film with a thickness of 0.003 inches (76 μm), a density of 0.905 g/cm^3 , tensile strength of 28,000 psi (193 N/mm^2), and elongation at break of 60% (page 12, lines 30-33; page 13, lines 16-30). Dronzek et al. further discloses label thicknesses of 0.002 to 0.008 inches (50.8 to 203.2 μm , page 4, lines 32-33), which overlaps the claimed range of at most 75 μm . Even though Dronzek et al. does not explicitly disclose the claimed tensile strength value of 100 N/mm^2 and elongation at break value of at most 70%, and gives only a couple of examples, additional materials which are disclosed by Dronzek et al. to be substantially identical, if not

Art Unit: 1794

identical, to the materials of the label of the instantly claimed invention, in addition to the overlapping ranges of label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the claimed tensile strength and elongation at break values are inherently achieved in Dronzek et al.

8. Dronzek et al. does not explicitly teach a film with an elongation at break which is at most 70%. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the elongation at break value of the film of Dronzek et al. to those including the claimed values of "at most 70%" according to the desired ductility of the film.

9. Dronzek et al. does not explicitly teach a tube body having a wall thickness of 0.3-1.2 mm or a squeezable plastic tube.

10. However, Hakansson discloses a plastic container/dispenser, i.e. tube, comprising a label being simultaneously formed with injection molding, wherein the container/dispenser has a wall thickness of "0.5-1 mm, typically 0.7 mm" (paragraph [32-34]). Hakansson discloses that such a thickness will enhance transparency, lower weight, and retain resistance to physical damage due to incautious handling of the dispenser and strains (paragraph 33) depending on the chosen polymer which is disclosed to include polyethylene or polypropylene (paragraph [30]).

11. Dronzek et al. and Hakansson are analogous because they all discuss containers comprised of labels.

12. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the plastic tube of Dronzek et al. with the wall thickness of Hakansson for the purposes of easily achieving transparency, lowering weight, and retaining resistance to damage due to incautious handling of the dispenser and strains of Hakansson (paragraph [33]).

Art Unit: 1794

13. Dronzek et al. as modified by Hakansson does not explicitly teach a squeezable plastic tube.

14. However, given that term “squeezable” may be applied in varying degrees and given the identical materials and structure, in particular, the thickness of the inventions, the tube of Dronzek et al. as modified by Hakansson would be expected to be intrinsically squeezable. Moreover, the containers as disclosed by Dronzek such as those holding dishwashing detergent (page 1, lines 13-14), would be expected to be squeezable.

15. Furthermore, Sloan et al. discloses a plastic flexible, hand-squeezable, container that can be made by injection molding (col. 5, lines 36-48). Furthermore, the container of Sloan et al. is made from substantially identical, if not identical, materials including thermoplastic polymers, such as polyethylene or polypropylene, comprising a label (col. 10, lines 55-56).

16. It would have been obvious to one of ordinary skill in the art at the time of the invention to form a plastic container in Dronzek that is squeezable as taught by Sloan et al. using the process taught by Dronzek et al. and Hakansson. Given substantially identical, if not identical, materials of biaxially oriented polypropylene film labels and polyethylene or polypropylene container bodies, a squeezable tube with label would have been successfully produced simultaneously through injection molding.

17. Alternatively, Kieras discloses a plastic flexible, hand-squeezable, tube (col. 3, lines 34-38) made from substantially identical, if not identical, materials including thermoplastic polymers, such as polyethylene or polypropylene (col. 3, lines 15-21), having a wall thickness of approximately 0.25 to 1.02 mm (0.010 to 0.040 inches, col. 3, lines 38-40), which overlaps the claimed range of 0.3 to 1.2 mm, and further comprising a label (col. 4, lines 12-15).

Art Unit: 1794

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to form a squeezable plastic tube as taught by Kieras to force the contents of a filled tube out (col. 3, lines 34-36).

19. Regarding all applicable claims, the recitations “[tube] being manufactured by injection molding” and [label] applied simultaneously with the injection molding” are process limitations. It is noted that “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

20. Therefore, absent evidence of criticality regarding the presently claimed process and given that Dronzek et al. as modified by Hakansson and Sloan et al. or Kieras meets the requirements of the claimed thin-walled squeezable plastic tube, the prior art clearly meets the requirements of present claims.

21. Regarding all applicable claims, Dronzek et al. as modified by Hakansson and Sloan et al. or Kieras teaches a thin-walled squeezable plastic tube.

22. Regarding claim 2, Dronzek et al. discloses a plastic film having machine and transverse direction tensile strength values, i.e., MD=110 N/mm², TD=193 N/mm², that exceed the claimed

Art Unit: 1794

radial tensile strength value of at least 50 N/mm^2 and machine and transverse elongation at break values, i.e., MD=160%, TD=60% (page 13, lines 16-30), that falls within the claimed ranges of at most 250%. The claimed radial tensile strength and elongation at break values are identified with the transverse direction of Dronzek's film in view of Fig. 1 in the specification. Therefore, it would be expected that the claimed radial tensile strength and elongation at break values are inherently achieved in Dronzek et al. Furthermore, even if the machine direction in Dronzek et al. should be identified with the claimed radial direction, additional materials which are disclosed by Dronzek et al. to be substantially identical, if not identical, to the materials of the label of the instantly claimed invention, in addition to the overlapping ranges of label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the claimed tensile strength values are inherently achieved in Dronzek et al.

23. Regarding claims 3-6 and 10-12, it would have been obvious to one skilled in the art at the time of the invention to apply the teachings of the prior art of in-mold labeling of labels to containers to include covering the surface of the substrate with a label in the various manners claimed, given the teachings of Dronzek et al. as modified by Hakansson and further modified by Sloan et al. or Kieras, as being routine experimentation and given the teachings and guidance in the prior art for in-mold labeling as a matter of design choice. See MPEP 2144.04

24. Regarding claim 7, Dronzek et al. further discloses a plastic film being a multilayer film comprising at least one layer of oriented polypropylene (page 11, lines 1-10; page 12, lines 15-17; page 17, lines 23-24).

25. Regarding claim 8, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a variety of end closures of containers and be motivated to apply

Art Unit: 1794

the label as taught by Dronzek et al. as modified by Hakansson and further modified by Sloan et al. onto a container having a non-linear end closure with a reasonable expectation of success as a matter of design choice for the container end closure. See MPEP 2144.04.

26. Regarding claim 9, Dronzek et al. further discloses the said plastic film having a density of 0.905 g/cm^3 , which falls within the claimed range of 0.5 to 1.0 g/cm^3 (page 13, line 20).

27. Regarding claim 13, Dronzek et al. teaches thin-walled plastic containers (page 12, lines 26-29), which include thin walled-plastic tubes comprising a tube body with a tube shoulder with an emptying opening at the first end and an end closure at the second end. The plastic tube comprises a label (page 12, lines 30-33). Dronzek et al. teaches the label being comprised of a plastic film, e.g. biaxially oriented thermoplastic polypropylene film with a thickness of 0.003 inches ($76 \mu\text{m}$), a density of 0.905 g/cm^3 , tensile strength of 28,000 psi (193 N/mm^2), which falls within the claimed value of at least 150 N/mm^2 , and elongation at break of 60% (page 12, lines 30-33; page 13, lines 16-30). Dronzek et al. further discloses label thicknesses of 0.002 to 0.008 inches (50.8 to $203.2 \mu\text{m}$, page 4, lines 32-33), which overlaps the claimed range of at most $90 \mu\text{m}$. Even though Dronzek et al. does not explicitly disclose the claimed elongation at break value, given substantially identical, if not identical, to those of the instantly claimed invention, in addition to the overlapping ranges of label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the elongation at break values are inherently achieved in Dronzek et al.

28. Furthermore, Dronzek et al. does not explicitly teach a film with an elongation at break that is at most 50%. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the elongation at break value of the film of Dronzek et al. to

Art Unit: 1794

those including the claimed values of “at most 50%” according to the desired ductility of the film.

29. Regarding claim 14, 16 and 17, Dronzek et al. teaches a plastic film having machine and transverse direction tensile strength values, i.e., MD=110 N/mm², TD=193 N/mm², that exceed the claimed value of at least 80 N/mm² and at least 120 N/mm². Even though Dronzek et al. does not explicitly disclose the claimed tensile strength value of at least 210 N/mm² and gives only a couple of examples, additional materials which are disclosed by Dronzek et al. to be substantially identical, if not identical, to the materials of the label of the instantly claimed invention, in addition to the overlapping ranges of label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the claimed tensile strength values of at least 210 N/mm² are inherently achieved in Dronzek et al.

30. Furthermore, Dronzek et al. does not explicitly teach a film with a tensile strength in the axial direction that is at least 210 N/mm². However, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the tensile strength value of the film of Dronzek et al. to those including the claimed values of “at least 210 N/mm²” according to the desired strength of the film.

31. Regarding claims 15, 19, and 20, Dronzek et al. teaches a plastic film having in the radial direction the elongation at break of 60% (page 12, lines 30-33; page 13, lines 16-30), which falls within the claimed ranges of at most 200% and at most 110%. Even though Dronzek et al. does not explicitly disclose the claimed tensile strength value of at most 25% and gives only a couple of examples, additional materials which are disclosed by Dronzek et al. to be identical, to the materials of the label of the instantly claimed invention, in addition to the overlapping ranges of

Art Unit: 1794

label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the claimed elongation at break values of at most 25% are inherently achieved in Dronzek et al.

32. Furthermore, Dronzek et al. does not explicitly teach a film with an elongation at break which is at most 25%. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the elongation at break value of the film of Dronzek et al. to those including the claimed values of "at most 25%" according to the desired ductility of the film.

33. Regarding claim 18, Dronzek et al. teaches a plastic film having a density of 0.905 g/cm^3 , which falls within the claimed range of 0.5 to 1.0 g/cm^3 .

Response to Arguments

34. Applicant's arguments, filed 28 October 2009, with respect to Dronzek not disclosing injection molding of label and container have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, Applicant's arguments are moot in view of the new ground(s) of rejection as set forth above.

35. Applicant's amendments overcome claim objection and 35 U.S.C. 112 rejections of record.

36. Applicant argues that "the Office asserts that the axial direction in the present application corresponds to the machine direction of Dronzek.

37. However, it does not appear that Examiner stated that the axial direction corresponds to the machine direction of Dronzek, as disclosed in paragraph 6.

Art Unit: 1794

38. Applicant argues that “nothing indicates for the skilled person such a change of the properties of the label material such that the label should end up within the claimed range of the elongation at break in the axial direction (corresponding to the machine direction of Dronzek).”

39. However, it is not required to make such a change given that it would have been obvious to one of ordinary skill in the art at the time of the invention to optimize the elongation at break value of the film of Dronzek et al. to those including the claimed values of "at most 70%" according to the desired ductility of the film. It is noted that the Examiner did not state that Dronzek teaches elongation at break of 160% as applicant argues, but rather Examiner stated that Dronzek discloses elongation of break at 60% (see paragraph 8 of previous Office Action).

40. Applicant argues that “Further ...a great amount of experimentation would be required to come to the elongation at break in the machine of the present claims.”

41. It may be that a great amount of experimentation may be required, however, it is noted that “the arguments of counsel cannot take the place of evidence in the record”, *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). It is the examiner’s position that the arguments provided by the applicant regarding the great amount of experimentation to arrive at the claimed values of elongation at break reference must be supported by a declaration or affidavit. As set forth in MPEP 716.02(g), “the reason for requiring evidence in a declaration or affidavit form is to obtain the assurances that any statements or representations made are correct, as provided by 35 U.S.C. 24 and 18 U.S.C. 1001”.

42. Applicant argues that “there is no correlation between the thickness of the label and the container”.

Art Unit: 1794

43. It is agreed that there is no correlation between the thickness of the label and the container of Dronzek., therefore Examiner's argument with respect to the correlation between the thickness of the label and the container is withdrawn. However, Examiner alternatively used Hakansson to teach the thickness of the thin-walled tube.

44. Applicant argues that Dronzek is directed to blow molding and that the desired properties of a label to be used during injection molding is completely different, or not derivable from a blow molding process.

45. The recitations "[tube] being manufactured by injection molding" and [label] applied simultaneously with the injection molding" are process limitations. It is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

46. Therefore, absent evidence of criticality regarding the presently claimed process and given that Dronzek et al. as modified by Hakansson and Sloan et al. or Kieras meets the requirements of the claimed thin-walled squeezable plastic tube, the prior art clearly meets the requirements of present claims. While Applicant argues that the presently claimed tube and the

Art Unit: 1794

tube of Dronzek would be different, applicants have provided no evidence to support this position.

47. Applicant argues that “it is asserted that Dronzek and Hakansson are analogous because they discuss containers comprised of labels made simultaneously by injection molding.”

48. It is agreed that Dronzek does not disclose containers comprised of labels made simultaneously by injection molding. However, in light of new grounds of rejection set for the above, the present argument is moot.

49. Applicant argues that “the combination of Dronzek and Hakansson would be expected to be intrinsically ‘squeezable’. Such an assertion is respectfully rebutted. If the Office is taking Official Notice of such a fact, the Applicant respectfully state that at the time of the invention, it was not well known in the art that blow molding as in Dronzek, produced squeezable tubes and request support for such an assertion.”

50. Examiner does not take Official Notice but rather notes that Sloan et al. discloses a plastic flexible, hand-squeezable, container that is made by injection molding (col. 5, lines 36-48) and furthermore, that the container of Sloan et al. is made from substantially identical materials including thermoplastic polymers such as polyethylene or polypropylene, comprising a label (col. 10, lines 55-56). In light of the teaching of Sloan et al. of substantially identical materials being used, the container of Dronzek would intrinsically be squeezable.

51. Applicant argues that “it is asserted that Sloan discloses a thin walled, squeezable container made by injection molding. However, there are a number of different methods, materials and properties for different parts disclosed... Hence is not explicitly mentioned that this combination should be preferred or even possible at the time of the publication.”

Art Unit: 1794

52. However, Applicant does not explicitly point out and it is not clear whether these different properties would necessarily have an effect on the container/tube.

53. Applicant argues that one of ordinary skill in the art may easily recognize the difference between a tube that is produced with an in mold applied label or with a label that is applied afterwards.”

54. However, it is noted that “the arguments of counsel cannot take the place of evidence in the record”, *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). It is the examiner’s position that the arguments provided by the applicant regarding the obvious difference of whether or not a tube is injection molded or if a label was applied by an in mold labeling technique reference must be supported by a declaration or affidavit. As set forth in MPEP 716.02(g), “the reason for requiring evidence in a declaration or affidavit form is to obtain the assurances that any statements or representations made are correct, as provided by 35 U.S.C. 24 and 18 U.S.C. 1001”.

Conclusion

55. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHENG YUAN HUANG whose telephone number is (571) 270-7387. The examiner can normally be reached on Monday-Thursday from 8 AM to 4 PM.

56. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho, can be reached at 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

57. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. H./

Cheng Yuan Huang

Examiner, Art Unit 1794

January 13, 2010

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1794